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EXAMINER

VO, TED T

ART UNIT PAPER NUMBER

2191

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/512,395

Applicant(s)

STURGES, JAY J.

Examiner

Ted T. Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-37 and 39-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-37 and 39-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

1. This action is in response to the amendment filed with RCE on 01/06/2006.

Claims 21-37, 39-41 are pending in the application.

Response to Arguments

2. Applicant's arguments have been considered. New ground of rejection presents in this Action.

Specification

3. The specification of this application is objected to.

(i) The abstract of this application exceeds 150 words in length (MPEP 608.01(b)).

Correction is required.

(ii) The specification in this application requires its arrangement of sections in accordance to 37 CFR 1.77(b). The Content of Specification requires including its sections in accordance to MPEP 608.01. In this case, according to MPEP 608.01(c), it has to have the section Background of the Invention, and this section, Background of the Invention, should set forth the Background of the Invention in two parts:

- (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
- (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if

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applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."

This specification section "FIELD OF THE INVENTION" appears in lines 1-5 of page 2 should be rearranged in accordance to the showing above. Thus, amendment to the specification in accordance to MPEP § 608.01(c) is required.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 21-37, 39-41 remain rejected under the judicially created doctrine of obviousness-type double patenting as being respectively unpatentable over claims 10-18 of U. S. Patent No. 6,138,273.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. The claims 36-37, 39-41 are rejected under 35 U.S.C 101 because the claimed invention is directed to non-statutory subject matter.

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The claimed invention as a whole must accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." State Street, 149 F.3d at 1373, 47 USPQ2d at 1601-02.

Federal courts have held that 35 U.S.C. 101 does have certain limits. First, the phrase "anything under the sun that is made by man" is limited by the text of 35 U.S.C. 101, meaning that one may only patent something that is a machine, manufacture, composition of matter or a process. See, e.g., Alappat, 33 F.3d at 1542, 31 USPQ2d at 1556; Warmerdam, 33 F.3d at 1358, 31 USPQ2d at 1757 (Fed. Cir. 1994). Second, 35 U.S.C. 101 requires that the subject matter sought to be patented be a "useful" invention. Accordingly, a complete definition of the scope of 35 U.S.C. 101, reflecting Congressional intent, is that any new and useful process, machine, manufacture or composition of matter under the sun that is made by man is the proper subject matter of a patent.

The subject matter courts have found to be outside the four statutory categories of invention is limited to abstract ideas, laws of nature and natural phenomena. While this is easily stated, determining whether an applicant is seeking to patent an abstract idea, a law of nature or a natural phenomenon has proven to be challenging. These three exclusions recognize that subject matter that is not a practical application or use of an idea, a law of nature or a natural phenomenon is not patentable. See, e.g., Rubber-Tip Pencil Co. v. Howard, 87 U.S. (20 Wall.) 498, 507 (1874) ("idea of itself is not patentable, but a new device by which it may be made practically useful is"); Mackay Radio & Telegraph Co. v. Radio Corp. of America, 306 U.S. 86, 94, 40 USPQ 199, 202 (1939) ("While a scientific truth, or the mathematical expression of it, is not patentable invention, a novel and useful structure created with the aid of knowledge of scientific truth may be."); Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759 ("steps of locating" a medial

As per Claim 36: Regarding the limitations recited in Claim 36:

A method comprising:

translating a source code instruction to generate a subroutine address without an intermediate translation.

It has been known that the term "translating" without telling how to translate is only preemption.

Preemption is usually is an abstract idea. A statement such as "translating A" is simply preemption of a natural phenomenon and of an abstract idea. With further example, a sole statement such as "sending men into the moon" is within the phrase "anything under the sun that is made by man"; however, a "useful, concrete and tangible result" is emptied in this statement. Similarly, to claiming a method comprising: **"translating a source code instruction to generate a subroutine address without an intermediate translation"** is merely preemption of an abstract idea or a natural phenomena without prodding a "useful, concrete and tangible result".

Therefore, the claim 36 fails to meet the requirement under 35 USC 101.

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Regarding Claim 37, "wherein translating the source code instruction includes directly translating the source code", this claiming "directly translating" is only addressing to an indented manner of a translation without telling how or why it is included with (See MPEP 211.04). Therefore, Claim 37 fails to remedy the deficiency of the independent claim 36.

Regarding Claim 39, "comprising receiving the source code instruction". Since Claim 36 is analyzed without providing a "useful, concrete and tangible result". This mere recitation, "comprising receiving the source code instruction" does not cause any change in the scope of the claim, and thus fails to remedy the deficiency of the independent claim 36.

Regarding Claim 40, "wherein translating the source code instruction includes parsing the source code instruction". Since Claim 36 is analyzed without providing a "useful, concrete and tangible result". This mere recitation, "wherein translating the source code instruction includes parsing the source code instruction" does not cause any change in the scope of the claim, and thus fails to remedy the deficiency of the independent claim 36.

Regarding Claim 41, "wherein translating the source code instruction includes parsing the source code instruction". Since Claim 36 is analyzed without providing a "useful, concrete and tangible result". This mere recitation, "wherein translating the source code instruction includes parsing the source code instruction" does not fails to remedy the deficiency of the independent claim 36.

To expedite a complete examination of the instant application the claims rejected under 35 U.S.C. 101 (nonstatutory) above are further rejected as set forth below in anticipation of application amending these claims to place them within the four statutory categories of invention.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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9. Claims 36-37, 39-41 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. The lack of critical or essential element for how to perform the method for translation and the combination of this critical or essential element to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

The Claim 36 does not define a scope of a method, but recite a single step, **"translating a source code instruction to generate a subroutine address without an intermediate translation"**. This claim attempts to broad a scope of a subject mater without telling how to do it, simply the limitation is mere preemption of an abstract idea, which enables no one to know how to do or to translate a source code instruction or to generate a subroutine address without an intermediate translation. Thus, this claim fails to include essential elements for how to translate or how to generate, or how it can be performed such translation without an intermediate translation.

For example, the statement "building an ABC car to drive" is a mere preemption of an abstract idea. This car, ABC, cannot be built because built elements are not defined.

In this case, **"translating a source code instruction to generate a subroutine address without an intermediate translation"**, will not enable any skills in the art how to translate a source code instruction.

Claims 37, 39-41, fail to form critical and essential steps to enable a relevant skill to how to translate as recited in the Claim 36, but the Claims further merely recite intended purposes of the translation. The further recitations fail remedy the Claim 36.

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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11. Claims 36-37, 39-41, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 36-37, 39-41: Claim 36 does not have a preamble, but broadly recites one single step.

With this single step, it does not know what is the functionality of the claim. The Claim thus fails to point what is the subject matter it want to claim, and fails to distinctly claiming the subject matter which the claim regards as a patentable feature, as set forth by this statute.

Claims 37, 39-41 that are connected to an indefinite claim will be indefinite.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claim 21-37, 39-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Richard Gabriel (Hereinafter: Gabriel), "Performance and Evaluation of Lisp Systems", MIT Press, August 1985.

Given the broadest reasonable interpretation of followed claims in light of the specification.

As per Claim 21: Gabriel discloses a common technique that uses a handcoded interpreter to interpreter a literal source code such as "+" (p. 36), "COND", "EQUAL", "=" (p.20-21), or a lexical bound Lips such as lambda (p. 21). When such a literal code encountered, the interpreter dispatches the literal source code to internal routines (Discussed in p. 20: Gabriel gives an example to a Lips' literal source code such as COND, when encountered, will dispatch to a COND handler. This is implied to "EQUAL", "=", (p. 21), or "+" (p. 36). The dispatch uses

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common function call such as CALL (p. 35) that opens and stores the routine address in a virtual address space in a stack. This rationale addresses to the claim recited as,

An apparatus comprising:

a machine readable storage medium having stored thereon instructions capable of being executed by a data processing platform, the instructions being adapted to (the stack, the program shown in the reference are the elements related to or stored in a computer storage):

receive a literal source code macroinstruction (See the interpreter, p. 7, p. 20-21, p. 36: "+", "=", "EQUAL", or a lexical bound Lips);

encode the literal source code macroinstruction into a corresponding subroutine address without an intermediate translation (use function call, p. 35);

generate an execution stream ('internal routines', p. 20); and

store the subroutine address (use stack associated with function call, p. 35);

As per Claim 22: The apparatus of claim 21, wherein the instructions are further adapted to execute a subroutine identified by the subroutine address (See internal routines and function call).

As per Claim 23: The apparatus of claim 22, wherein the instructions are further adapted to push at least one associated argument onto a stack, the at least one associated argument adapted to be used as an input to the subroutine identified by the subroutine address (See discussion of function call using stack, p. 35, where push/pop is a stack instruction).

As per Claim 24: The apparatus of claim 22, wherein the instructions are further adapted to pop the at least one associated argument from a stack, the at least one associated argument adapted to be used as an input to the subroutine identified by the subroutine address (See discussion of function call using stack, p. 35, where push/pop is a stack instruction).

As per Claim 25: The apparatus of claim 22, wherein the instructions are further adapted to push a result of the execution of the subroutine onto a stack (See function call).

As per Claim 26: The apparatus of claim 22, wherein the instructions are further adapted to point to the first item associated with the subroutine stored in the execution stream (see p. 21, "type dispatch on the first argument... pointers").

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As per Claim 27: The apparatus of claim 21, wherein the instructions are further adapted to recursively execute a subroutine (intended to a common programming technique).

As per Claim 28: Gabriel discloses a common technique a method comprising:
receiving a source code command input stream comprising a macroinstruction; (Interpreter receives symbols such as "+", "=", "EQUAL", or a lexical bound Lips (p. 7, p. 20-21, p. 36));
encoding said the instruction into a corresponding subroutine address without an intermediate translation (use internal routines to bind the symbols, see p.20-21);
generating an execution stream for storing the subroutine address and associated arguments (That is the handcoded interpreter, and stack, function call); and
executing a subroutine identified by the subroutine address (That is the internal routines, stack, and function call).

As per Claim 29: The method of claim 28, and further comprising pushing an argument onto a stack, the argument representing an input to said the subroutine identified by the subroutine address (Claim recites common push pop function used in stack, see p. 20-21).

As per Claim 30: The method of claim 28, and further comprising popping an argument from a stack, the argument representing an input to said subroutine identified by said the subroutine address (Claim recites common push pop function used in stack, see p. 20-21).

As per Claim 31: The method of claim 28, and further comprising pushing a result of the execution of the subroutine onto a stack (Claim recites common push pop function used in stack, see p. 20-21).

As per Claim 32: The method of claim 28, and further comprising pointing to the first item associated with the subroutine stored in the execution stream (see p. 21, "type dispatch on the first argument... pointers").

As per Claim 33: An apparatus comprising:
a machine readable storage medium having stored thereon instructions capable of being executed by a data processing platform, said I instructions being adapted to (the stack, the program shown in the reference are the elements related to or stored in a computer storage):

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encode macroinstructions to provide a corresponding executable address without an intermediate translation (See the interpreter, p. 20-21).

As per Claim 34: The apparatus of claim 33, wherein the instructions are further adapted to receive the macroinstructions (For example, see "+" in p. 36, or see "COND", "EQUAL", in p. 20-21).

As per Claim 35: The apparatus of claim 33, wherein the instructions are further adapted to generate an execution stream (internal routine, or handcode)

As per Claim 36: A method comprising:

translating a source code instruction to generate a subroutine address without an intermediate translation (See the "interpreter", p. 20-21, the word "INTERPRETER" teaches this limitation).

As per Claim 37: The method of claim 36, wherein translating the source code instruction includes directly translating the source code (Still inherent in the word "INTERPRETER").

As per Claim 39: The method of claim 36, further comprising receiving the source code instruction (Any Interpreter applied to a program will receive at least an instruction).

As per Claim 40: The method of claim 36, wherein translating the source code instruction includes parsing the source code instruction (The Interpreter when it reads a code, it can not be smart enough in order to see a symbol, it requires parsing).

As per Claim 41: The method of claim 36, further comprising generating an execution stream for storing the subroutine address (The act of compiler or of interpreter is to generate an execution stream).

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ted T. Vo whose telephone number is (571) 272-3706. The examiner can normally be reached on 8:00AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Y. Zhen can be reached on (571) 272-3708.

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The facsimile number for the organization where this application or proceeding is assigned is the Central Facsimile number **571-273-8300**.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ted T. Vo
Primary Examiner
Art Unit 2191
March 17, 2006